

REMARKS

The present Amendment amends claims 1-9. Therefore, the present application has pending claims 1-9.

Claim 8 stands rejected under 35 USC §112, second paragraph as being indefinite for failing to particularly point out and distinctly claim the subject matter which Applicants regards as the invention. Various amendments were made throughout claim 8 to bring it into conformity with the requirements of 35 USC §112, second paragraph. Therefore, Applicants submit that this rejection is overcome and should be withdrawn.

Specifically, amendments were made throughout claim 8 to overcome the objections noted by the Examiner in paragraph 2 of the Office Action.

The Examiner's cooperation is respectfully requested to contact Applicants' Attorney by telephone should any further indefinite matter be discovered so that appropriate amendments may be made.

Applicants acknowledge the Examiner's indication in paragraph 5 of the Office Action that claims 5 and 6 would be allowable if rewritten in independent form including all the limitations of the base claim and any intervening claims. Amendments were made to claims 5 and 6 to place them in independent form including all the limitations of the base claim and any intervening claims. Therefore, claims 5 and 6 are allowable as indicated by the Examiner.

Claims 1-4 and 7-9 stand rejected under 35 USC §102(e) as being anticipated by Yanai (U.S. Patent Publication No. 2004/0073831 A1). This rejection is traversed for the following reasons. Applicants submit that the features of the

present invention as now recited in 1-4 and 7-9 are not taught or suggested by Yanai whether taken individually or in combination with each any of the other references of record. Therefore, Applicants respectfully request the Examiner to reconsider and withdraw this rejection.

Amendments were made to the claims to more clearly recite that the present invention is directed to a storage resource operation managing method in a storage network arranged by a node for transmitting an access request via a network to a storage and by a storage group constituted by at least one storage resource which receives the access request so as to execute a content of the access request. The storage resource operation managing method acquires at least one of a logical distance and a geographical distance from at least one of the node and the storage resource contained in the storage group and the storage resources contained in the storage group, acquires from the node a requirement range with respect to at least one of the logical distance and the geographical distance, and selects at least one storage resource for executing the access request issued from the node from the storage group while at least one of the requirement range with respect to the logical distance and the requirement range with respect to the geographical distance is set as a selecting condition.

The above described features of the present invention now more clearly recited in the claims are not taught or suggested by any of the references of record particularly Yanai whether taken individually or in combination with any of the other references of record.

Yanai discloses a remote data mirroring configuration wherein two data storage systems are interconnected by a data link for remote mirroring of data. Yanai teaches, for example, in paragraph [0011] thereof that a system is provided that controls storing of primary data received from a primary host computer on a primary data storage system and additionally controls the copying of the primary data to a secondary data storage system controller which forms part of a secondary data storage system for providing a backup copy of the primary data on the secondary data storage system which is located in a geographically remote location from the primary data storage system. Thus, Yanai discloses a technique of remotely operating a mirrored volume pair configuring a copy pair in order to copy data remotely by two data storage systems both connected with a communication link.

However, at no point is there any teaching or suggestion in Yanai of the above described features of the present invention wherein at least one of a logical distance and a geographical distance from at least one of the node and the storage resources contained in the storage group and the storage resources contained in the storage group are acquired according to the present invention as recited in the claims.

Yanai teaches, for example, in paragraphs [0232]-[0233] a technique known as application based recovery which maintains a log file of all write requests to a data file. Yanai teaches that in order to ensure recovery, data is always written to the log file before it is written to the data file and the log file may contain a number of different versions of data written to the same location or track in the data set. As

taught by Yanai, the log file is maintained on a remotely mirrored volume pair 291, 293 and the data file 294 on a remotely mirrored volume pair 295, 296 in the data processing system 210. Yanai teaches that the degree of synchronization between the primary volumes and the secondary volumes 296 is selected to guarantee that the new data is written to the secondary (R2) log file 293 before the new data is written to the secondary (R2) data file 294. Thus, as is quite clear from the above, Yanai teaches features regarding a "log file" and the "location or track" of the data file.

However, at no point is there any teaching or suggestion in Yanai that at least one of a logical distance and a geographical distance from at least one of the node and the storage resources contained in the storage group and the storage resources contained in the storage group are acquired as recited in the claims.

Paragraph [0258] of Yanai describes a volume and track table 501 as containing the location of each logical track on a disk which also indicates the location of data. However, this teaching of Yanai does not supply any of the above described features of the present invention as recited in the claims. Thus, Yanai does not teach any of the above described features of the present invention as now more clearly recited in the claims and further does not teach or suggest many other features now recited in the claims.

For example, Yanai does not teach or suggest that a requirement range with respect to at least one of the logical distance and the geographical distance is acquired from a node and that at least one storage resource for executing the access resource issued from the node from the storage group is selected while at

least one of the requirement range with respect to the logical distance and the requirement range with respect to the geographical distance is set as a selecting condition.

Thus, Yanai fails to teach or suggest acquiring from the node a requirement range with respect to at least one of the logical distance and the geographical distance and selecting at least one storage resource for executing the access request issued from the node from the storage group, while at least one of the requirement range with respect to the logical distance and the requirement range with respect to the geographical distance is set as a selecting condition as recited in the claims.

Therefore, as is quite clear from the above, Yanai fails teach or suggest the features of the present invention as more clearly recited in the claims. Accordingly, reconsideration and withdrawal of the 35 USC §102(e) rejection of claims 1-4 and 7-9 as being anticipated by Yanai is respectfully requested.

The remaining references of record have been studied. Applicants submit that they do not supply any of the deficiencies noted above with respect to the reference utilized in the rejection of claims 1-4 and 7-9.

In view of the foregoing amendments and remarks, applicants submit that claims 1-9 are in condition for allowance. Accordingly, early allowance of claims 1-9 is respectfully requested.

To the extent necessary, the applicants petition for an extension of time under 37 CFR 1.136. Please charge any shortage in fees due in connection with the filing of this paper, including extension of time fees, or credit any overpayment of fees, to the deposit account of MATTINGLY, STANGER & MALUR, P.C., Deposit Account No. 50-1417 (500.41164X00).

Respectfully submitted,

MATTINGLY, STANGER & MALUR, P.C.



Carl I. Brundidge
Registration No. 29,621

CIB/jdc
(703) 684-1120